

Appln No. 09/650,275

Amdt date January 9, 2004

Reply to Office action of October 27, 2003

REMARKS/ARGUMENTS

The above identified patent application has been amended and reconsideration and reexamination are hereby requested.

Claims 1 - 8 and 14 - 27 are now in the application Claims 1, 5, 6, 8, 14, 16, 17, 18, 22, 23, 25 and 27 have been amended.

The Examiner has rejected Claims 1 - 4, 6 - 7, 14 - 21 and 23 - 24 under 35 U.S.C. §103 as being unpatentable over Joardar et al. in view of Miyata.

The Applicant's amended Claims 1 and 18 call for (underlining added for emphasis) ... an elongate region extending around a major portion of the periphery of the substrate and having a gap between ends of the elongate region along a minor portion of the periphery, the elongate region being electrically isolated from the remainder of the substrate except at the gap; and ... a passive conductive seal ring extending around the entire periphery of the die in direct contact with the die along said elongate region and in direct contact with the substrate at the gap.

The Applicant's amended Claim 14 calls for (underlining added for emphasis) ... an elongate well region of a second conductivity type opposite from the first conductivity type extending around a major portion of the periphery of the substrate and having a gap between the ends of the elongate region along a minor portion of the periphery, the elongate well region being electrically isolated from the remainder of the substrate except at the gap; and ... a passive conductive seal ring extending around the entire periphery of the die in direct

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contact with the die along said elongate well region and in direct contact with said gap.

Accordingly, the Applicant submits that the invention as claimed in Claims 1, 14 and 18 is neither taught, described or suggested in Joardar et al., even in view of Miyata.

While Joardar et al. may provide a circuit die having improved substrate noise isolation and includes a noise isolation ring, the Examiner acknowledges that Joardar et al. does not teach a conductive seal ring being in direct contact with the die along the elongate region.

While the Examiner indicates that Miyata teaches a conductive seal ring formed in direct contact with a die along an elongate well region so as to form a PN junction diode therein, such seal ring would be an active conductive seal ring, not a passive conductive seal ring, such as a multilayer structure of alternating conducting and insulating layers with vias formed in the insulating layers, as in one embodiment of the present invention.

Further, the Applicant submits that neither Joardar et al. nor Miyata describes, teaches or suggests, alone or in combination, the elongate region, or the elongate well region, being electrically isolated from the remainder of the substrate except at the gap and the passive conductive seal ring being in direct contact with the substrate at the gap.

Accordingly, the Applicant submits that Claims 1, 14 and 18 are not unpatentable over Joardar et al. in view of Miyata.

Claims 2 - 8 are dependent on Claim 1. Claims 15 - 17 are dependent on Claim 14. Claims 19 - 27 are dependent on Claim

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18. As such, these claims are believed allowable based upon Claims 1, 14 and 18 respectively.

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the above Application is requested.

Respectfully submitted,

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